A LIPID MANAGEMENT PROGRAM; RESULTS OF APPLYING NATIONAL GUIDELINES IN A PRIVATE PRACTICE.

Joseph Robbins, Jesse St. Clair, Charles Ashby, Shirley Sokolinsky, Leslie O'Donnell, Kathy Witkowski, Norfolk, VA USA

In January 1988 an 11 physician cardiology practice implemented a lipid management program (LMP) based on guidelines recommended by the expert panel convened at the NHLBI. Guidelines were modified based on the Helsinki-gemfibrozil study. All patients (pts.) underwent assessment for secondary causes of hyperlipidemia and nearly all pts. were referred for dietary instruction.

Customized software was written to support the LMP. This software served as a database, indicated pts. with lab or lipid data due, sent reminders and results to pts. and referring physicians. Data were analyzed in August, 1990. There were 1198 pts. in the LMP. Analysis was limited to the 510 pts. enrolled for more than one year.

Mean Values	Initial	Final	% Change
Cholesterol	244	216	-11.40
Triglycerides	190	158	-16.96
HDL Cholesterol	41	42	+ 2.45
LDL Cholesterol	165	143	-13.33

Target LDL was analyzed at <130 and <160. Target HDL was set at >35. The table below shows the number of pts. who achieved both targets and also expresses their percentage of those eligible by initial LDL.

Initial LDL	Final LDL	Number	% Eligible
160-190	<130	18	15.3
>190	<160	61	44.5
>160	<130	46	17.8

Of 46 pts. with initial LDL > 160 who achieved target values for LDL and HDL, 13 (28.3%) were able to do so without pharmacotherapy.

Conclusion: A uniform standard of care based on national guidelines can result in effective lipid management in private practice. Computerization can be used to efficiently deliver a large volume of care by enhancing communication and completeness of follow-up.

THE PREVALENCE OF LOW HDL CHOLESTEROL IN PATIENTS UNDERGOING CORONARY ARTERIOGRAPHY FOR CHEST PAIN

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To determine the prevalence of a low (<0.9 mmol/l) HDL cholesterol in patients presenting with chest pain for coronary arteriography, we measured total and HDL cholesterol levels in 481 consecutive patients of Green Lane Hospital who underwent coronary arteriography in 1988. All except 30 of these patients, had coronary artery disease (CAD) (at least one significant stenosis >75% cross sectional area loss of a major coronary artery); the no CAD group was analysed separately. These data were compared with lipid levels from a random survey of the population (POP) of the same area, performed from 1986-1988, and the lipid analyses were performed at the same laboratory. There were no significant differences between the total cholesterol levels (mmols/l) between the CAD (6.3 ± 1.2), no CAD (6.0 ± 1.2), and POP (6.3 ± 1.0; n = 848) groups, whereas the HDL cholesterol was lower in the CAD group compared with the POP group (1.0 ± 0.28 v 1.4 ± 0.22; p<0.001); this effect was not due to beta blocker therapy. These findings were the same in all age groups between 35-64 in both males and females; the no CAD group had insufficent numbers for such analysis. Sixty seven (15%) of CAD patients had a total cholesterol of <5.2mmol/l; in this group the HDL cholesterol was 0.88 ± 0.23mmol/l, indicating that 8% of CAD patients had a 'normal' cholesterol and low HDL cholesterol.
These data show that the major difference in blood lipids between CAD patients and similar individuals in the community is a low HDL cholesterol. HDL cholesterol should be measured in screening lipid analyses.

Tuesday, March 5, 1991
4:00–5:30PM, Room 202, East Concourse
Diagnosis and Prognosis of Coronary Artery Disease
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5:30

SIMULTANEOUS DUAL ISOTOPE REST/STRESS MYOCARDIAL PERFUSION SCINTIGRAPHY: A FEASIBILITY STUDY. J Friedman, K Van Train, H Kiat, F P Wang, M Hyun, G Silagan, J Bietendorf, J Maddahi, D Berman, Cedars-Sinai Med Ctr, Los Angeles, CA

To assess a more efficient SPECT imaging protocol, 9 pts underwent simultaneous dual isotope Tc-99m sestamibi(Tc) and Tl-201 SPECT. Pts received 15 mCi of Tc at peak exercise(EX) followed by Tc SPECT and then immediately 3.5 mCi of Tl at rest followed by dual Tc/Tl SPECT. A heart/lung/spine phantom with 2:1 concentrations of Tc to Tl was also evaluated using defects(defs) simulating mild non-reversible abnormalities(abnl). Images were interpreted visually using a 5 point system (0=normal, 4=absent uptake) in 20 segments(segs). Quantitative(Q) def contrast(con) was assessed by circumferential profiles and (def) size by polar mapping and comparison to nl limits. With respect to the effect of Tl on Tc, in pts, there was exact agreement for score between Tc alone and Tc dual in 162/180(90%) seg. Mean Q def con was .57 ± .14 for Tc alone vs .55 ±.12 for Tc dual(p=ns). There were equal numbers of segs abnl(score ≥ 2) by Tc alone vs Tc dual. Q polar map def extent was 25 ± 10 for Tc dual vs 28 ± 14 for Tc alone (p=ns). Regarding effect of Tc on Tl, there was 18% decrease in def con in phantoms. However in pts 87% of seg had identical scores by rest Tl dual vs rest Tc, and if scores 0-1 and 3-4 were combined, exact agreement was 96%. Numbers of reversible segs were equal by dual vs Ex Tc/rest Tc in 7/9 pts and in 24/26 vascular territories. In conclusion, with simultaneous dual isotope Ex Tc/rest Tl SPECT: Tl had no visual or Q effect on Tc images; although Tc caused mild decrease in Tl def con in phantoms, this effect was minimal in pts. The findings suggest that simultaneous rest/stress perfusion SPECT is feasible, offering promise to dramatically reduce pt, equipment, and technologist times as well as artifacts resulting from two separate SPECT acquisitions.

Wednesday, March 6, 1991
Poster Displayed: 2:00PM–5:00PM
Author Present: 2:00PM–3:00PM
Hall F, West Concourse
New Imaging Agents and Techniques
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THE ADDED VALUE OF LATE REDISTRIBUTION IMAGING IN THE TOMOGRAPHIC STRESS THALLIUM-201/4 HOUR REINJECTION METHOD
Kent A. Takemoto, Hosen Kiat, John Friedman, Daniel S. Berman, Cedars-Sinai Medical Center, Los Angeles, CA

Recent studies have suggested that the detection of viable myocardium by stress/redistribution Tl-201 SPECT is enhanced by the reinjection (RINJ) of Tl-201 at 4 hour redistribution imaging (4HRI), thereby possibly eliminating the need for 24 hour redistribution imaging (24HRI). To assess the frequency of late reversibility (LR) in the 4 hour RINJ method we examined the tomograms of 50 pts with multiple nonreversible 4HRI defects. Pts received 3.5mCi of Tl-201 at stress and 1.0mCi immediately prior to 4HRI. The myocardial tomograms were divided into 20 segments. A 4 point Tl-201 scoring system was used (0=normal and 3=severe reduction of Tl-201 uptake), with a score of ≥2 considered a significant defect (DEF). Those pts with ≥3 DEFs after the 4HRI were brought back for 24HRI. Subjects who had ≥2 DEFs at 4HRI which filled in by 24HRI were considered to have LR. There were 380 DEFs at stress imaging, 258 at 4HRI and 220 at 24HRI. The % of 4HRI DEF that reversed by 24HRI in these pts were compared to our previous studies for significant differences:

	24 HOUR LATE REVERSIBILITY		
STUDY	% OF DEF REV	% PTS >1 DEF REV	% PTS >2 DEF REV
PRESENT	(38/258) 15%	(21/50) 42%	(7/50) 14%
KIAT*	24% (p=0.01)	58% (p=0.13)	34% (p=0.03)
YANG**	22% (p=0.02)	53% (p=0.30)	35% (p=0.01)

*Pts RINJ immediately post-stress (Circulation(abstr)1990) as opposed to RINJ at 4 hours as in the present study.
**Pts were not RINJ. J Am Coll Cardiol 1990;15:334-40.
Although the SPECT stress Tl-201/4 hour RINJ method demonstrates significantly less LR than seen in early RINJ and nonRINJ protocols, LR occurs in a substantial proportion of pts in the 4 hour RINJ method and may provide valuable information about myocardial viability.